REMARKS

Applicant wishes to thank the Patent Examiners for the courtesies extended during the interview on 03/27/2001 and a prompt response.

No new matter has been added and a withdrawal of the rejections is requested.

If you have any further questions please feel free to call me (Ph.: 410-465-2212).

Thanking you in advance for your cooperation.

Respectfully submitted,

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CLEAN COPY OF THE CLAIMS

1. A mucin-DNA (deoxyribonucleic acid) complex formed by combining mucin and DNA for the transport of said mucin-DNA complex into a cell.

2. A mucin-biomolecules complex formed by combining mucin and biomolecules for the transport of said mucin-biomolecules complex into a cell.

3. A mucin-DNA complex as in claim 1, where said mucin is selected from the group consisting of mucin from a biological source; mucin from a non-biological source; and, combinations thereof.

4. A mucin-DNA complex as in claim 1, where said mucin is selected from the group consisting of mucin in its native state; biologically modified mucin; chemically modified mucin; mucin modified by enzymes; mucin modified by heat-based methods; and, combinations thereof.

5. A mucin-DNA complex as in claim 1, where said mucin contains sialic acid.

6. A mucin-DNA complex, as in claim 1, where said DNA is selected from the group consisting of DNA in its natural state; modified DNA; synthetically created DNA; linear DNA; circular DNA; single-stranded DNA; double-stranded DNA; and, combinations thereof.

7. A mucin-biomolecules complex as in claim 2, where said biomolecules are selected from the group consisting of DNA, RNA, nucleic acids, proteins, peptides, antibodies, glycolipids, glycoproteins, natural polymers, synthetic polymers, modified polymers, and combinations thereof.

8. A mucin-biomolecules complex as in claim 2, where said biomolecules are selected from the group consisting of biomolecules in their natural state; modified biomolecules; synthetically created biomolecules, and combinations thereof.

9. A mucin-DNA complex as in claim 1, where said complex is purified by a method selected from the group consisting of chromatographic methods, centrifugation methods, and, combinations thereof.

11. A mucin-DNA complex as in claim 1, where said mucin in said complex can undergo modifications including the addition, removal or alteration of the carbohydrate or protein components comprising said mucin.

12. A mucin-DNA complex as in claim 1, where said mucin in said complex is modified to target specific cells as the targets of transfection.

13. A mucin-DNA complex as in claim 1, where said complex is used for applications selected from the group consisting of gene therapy, cell repair, cell modification, the production of specific proteins or enzymes in specific cells, and combinations thereof.

14. A mucin-biomolecules complex as in claim 2, where said mucin is selected from the group consisting of mucin from a biological source; mucin from a non-biological source; and, combinations thereof.

15. A mucin-biomolecules complex as in claim 2, where said mucin is selected from the group consisting of mucin in its native state; biologically modified mucin; chemically modified mucin; mucin modified by enzymes; mucin modified by heat-based methods; and, combinations thereof.

16. A mucin-biomolecules complex as in claim 2, where said mucin contains sialic acid.

17. A mucin-biomolecules complex as in claim 2, where said complex is purified by a method selected from the group consisting of chromatographic methods, centrifugation methods, and, combinations thereof.

18. A mucin-biomolecules complex as in claim 2, where said mucin in said complex can undergo modifications including the addition, removal or alteration of the carbohydrate or protein components comprising said mucin.

19. A mucin-biomolecules complex as in claim 2, where said mucin in said complex is modified to target specific cells as the targets of transfection.

20. A mucin-biomolecules complex as in claim 2, where said complex is used for applications selected from the group consisting of gene therapy, cell repair, cell modification, the production of specific proteins or enzymes in specific cells, and combinations thereof.

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